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EXAMINER

MORTELL, JOHN F

ART UNIT

PAPER NUMBER

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/563,664	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> JOHN F. MORTELL	<b>Art Unit</b> 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 1/8/2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 10-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 March 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of the Application***

1. This application is proceeding on the applicants' Request for Continuing Application (RCE), filed January 8, 2009.
2. The applicants having filed on January 8, 2009, a certified English translation of the German patent application to which priority is claimed, the priority date of July 10, 2003, will be applied henceforth in the examination of this application.
3. Claims 10-28 are pending in the application. The applicants previously cancelled claims 1-9. The applicants previously added claims 10-28.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 10-13, 15, 16, 19, 20, and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Tanaka et al. (US PG Pub. 2003/0058337 A1).

Regarding claim 10, Tanaka discloses:

a device for driving assistance for parallel parking a vehicle ([0003], [0045]), comprising:

an output unit for outputting parallel parking driving instructions to a driver ([0009], [0036]; FIG. 5: 5);

wherein the parallel parking driving instructions provide a driver with a driving zone situated between two trajectories which are calculated in such a way that the vehicle can be moved within the driving zone ([0054]; FIG. 1: R).

Regarding claim 11, Tanaka discloses a device wherein the output unit includes a display configured to display surroundings of the vehicle and to display the driving zone with respect to the displayed surroundings of the vehicle. ([0042], [0053], [0057], [0059], [0060], [0061]; FIG. 1: 12, 13, 14, R, S; FIG. 2: 12, 13, 14, S)

Regarding claim 12, Tanaka discloses a device further comprising:

a detection unit configured to detect a set steering angle and to determine an anticipated travel path at an unchanged steering angle, the anticipated travel path being displayed at least partially with respect to the surroundings of the vehicle. ([0039], [0054], [0065]; FIG. 1: 7A; FIG. 5: 2, 4)

Regarding claim 13, Tanaka discloses a device wherein the trajectories delimiting the driving zone require at least one full angle of a steering wheel for following the appropriate trajectory. The language, “at least one full angle of a steering wheel” does not specify the magnitude of the angle, and therefore, any angle that varies from a straight trajectory constitutes “at least one full angle of a steering wheel.” As shown in the citations for claims 10 and 12 above, Tanaka teaches a device that guides a vehicle in parking when the steering wheel is turned at an angle from a straight trajectory of the vehicle. (See the citations for claims 10 and 12, especially FIGS. 1 and 2)

Regarding claim 15, Tanaka discloses a device further comprising a computer unit configured to determine a parking space suitable for the vehicle. ([0045]; FIG. 2: P)

Regarding claim 16, Tanaka discloses a device wherein an indication for changing a turning direction of a steering wheel is output. ([0053]; [0054], [0059]; FIG. 1: R, S, 7B)

Regarding claim 19, Tanaka discloses a device wherein:

the output unit includes a display configured to display surroundings of the vehicle and to display the driving zone with respect to the displayed surroundings of the vehicle (see the citations for claims 10 and 11),

and wherein the trajectories delimiting the driving zone require at least one full angle of a steering wheel for following the appropriate trajectory (see the citations for claim 13).

Regarding claim 20, Tanaka discloses a device further comprising:

a detection unit configured to detect a set steering angle and to determine an anticipated travel path at an unchanged steering angle, the anticipated travel path being displayed at least partially with respect to the surroundings of the vehicle. (See the citations for claim 12.)

Regarding claim 28, Tanaka discloses:

a driving aid device for parking a vehicle, comprising:

an output unit for outputting driving instructions to a driver, wherein the driving instructions indicate to the driver a driving range between two trajectories which designate two different determined routes, the routes being determined so that the vehicle is moveable to park it within the driving range. (See the citations for claim 10.)

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 14, 21, 23, 24, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Janssen (US 6,919,917 B1).

Regarding claim 14, Tanaka does not explicitly disclose a device further comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle.

Janssen, in the same field of endeavor, teaches a device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle for the benefit of providing an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction. (col. 1, lines 38-49; col. 2, lines 29-32; col. 6, lines 16-20; FIG. 1: 9a, 9b, 9c, 9d, 9e; FIG. 6: 9c, 9d, 9e)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle

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to obstacles in the surroundings of the vehicle, as taught by Janssen, with the device for driving assistance disclosed by Tanaka because it would enable the device to provide an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction.

Regarding claim 21, Tanaka discloses a device further comprising:

a computer unit configured to determine a parking space suitable for the vehicle (see the citations for claim 15);

wherein an indication for changing a turning direction of a steering wheel is output (see the citations for claims 15 and 16).

Tanaka does not disclose a device further comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle.

Janssen, in the same field of endeavor, teaches a device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle for the benefit of providing an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction. (See the citations for claim 14.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle, as taught by Janssen, with the device for

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driving assistance disclosed by Tanaka because it would enable the device to provide an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction.

Regarding claim 23, Tanaka further discloses a speaker to output an acoustic alert signal when leaving the driving zone. (See the citations for claim 18.)

Regarding claim 24, Tanaka discloses a device further comprising:

a computer unit configured to determine a parking space suitable for the vehicle; wherein an indication for changing a turning direction of a steering wheel is output. (See the citations for claims 15 and 16.)

Tanaka does not disclose a device further comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle.

Janssen, in the same field of endeavor, teaches a device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle for the benefit of providing an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction. (See the citations for claim 14.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the device for monitoring the environment of a vehicle being parked comprising a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle, as taught by Janssen, with the device for



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driving assistance disclosed by Tanaka because it would enable the device to provide an object-detection unit which processes both data from object-detection sensors as well as video images so that it is possible at any time for the driver, in a simple fashion, to carry out monitoring and driving correction.

Regarding claim 27, Tanaka discloses a device further comprising:

a detection unit configured to detect a set steering angle and to determine an anticipated travel path at an unchanged steering angle, the anticipated travel path being displayed at least partially with respect to the surroundings of the vehicle. (See the citations for claims 10 and 11.)

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Luckscheiter et al. (US 6,226,592 B1).

Regarding claim 17, Tanaka does not disclose a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone.

Luckscheiter, in the same field of endeavor, teaches a system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone for the benefit of assisting a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior. (col. 1, lines 37-40; col. 2, lines 38-45, 57-63)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a

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steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone, as taught by Luckscheiter, with the device for driving assistance disclosed by Tanaka because it would enable the device to assist a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior.

9. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Okamoto (US PG Pub. 2003/0045973 A1).

Regarding claim 18, Tanaka does not disclose a device further comprising a speaker to output an acoustic alert signal when leaving the driving zone.

Okamoto, in the same field of endeavor, teaches a parking support unit for assisting a steering operation of a motor vehicle during parallel parking, wherein the unit comprises a speaker, so that when the actual vehicle route image is deviates from the predicted vehicle route image, a phonic warning is given to a driver of the vehicle for the benefit that the driver can operate the steering wheel to bring the actual vehicle route to coincide with the predicted vehicle route. ([0002], [0043], [0052], [0072]; FIG. 2: 8)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the parking support unit for assisting a steering operation of a motor vehicle during parallel parking, wherein the unit comprises a speaker, so that when the actual vehicle route image is deviates from the predicted vehicle route image, a phonic warning is given to a driver of the vehicle, as taught by Okamoto, with the device disclosed by Tanaka because it would enable the device to alert the driver to

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operate the steering wheel to bring the actual vehicle route to coincide with the predicted vehicle route.

10. Claims 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Janssen and further in view of Luckscheiter.

Regarding claim 22, the above combination of Tanaka and Janssen teaches the device for driving assistance as recited in claim 21 but does not teach a device further comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone.

Luckscheiter, in the same field of endeavor, teaches a system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone for the benefit of assisting a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior. (See the citations for claim 17.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone, as taught by Luckscheiter, with the device for driving assistance disclosed by Tanaka because it would enable the device to assist a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb

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otherwise risky behavior.

Regarding claim 25, the above combination of Tanaka and Janssen teaches the device for driving assistance as recited in claim 24 but does not teach a device further comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone.

Luckscheiter, in the same field of endeavor, teaches a system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone for the benefit of assisting a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior. (See the citations for claim 17.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone, as taught by Luckscheiter, with the device for driving assistance disclosed by Tanaka because it would enable the device to assist a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior.

11. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Janssen and further in view of Okamoto.

Regarding claim 26, the above combination of Tanaka and Janssen teaches the device for driving assistance as recited in claim 24 but does not teach a device further comprising a speaker to output an acoustic alert signal when leaving the driving zone.

Okamoto, in the same field of endeavor, teaches a parking support unit for assisting a steering operation of a motor vehicle during parallel parking, wherein the unit comprises a speaker, so that when the actual vehicle route image is deviates from the predicted vehicle route image, a phonic warning is given to a driver of the vehicle for the benefit that the driver can operate the steering wheel to bring the actual vehicle route to coincide with the predicted vehicle route. (See the citations for claim 18.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the parking support unit for assisting a steering operation of a motor vehicle during parallel parking, wherein the unit comprises a speaker, so that when the actual vehicle route image is deviates from the predicted vehicle route image, a phonic warning is given to a driver of the vehicle, as taught by Okamoto, with the device disclosed by Tanaka because it would enable the device to alert the driver to operate the steering wheel to bring the actual vehicle route to coincide with the predicted vehicle route.

### ***Response to Arguments***

The applicants' arguments with respect to claims 10-28 have been considered but are moot in view of the new grounds of rejection stated above.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN F. MORTELL whose telephone number is (571)270-1873. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571)272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JM/

/Daniel Wu/  
Supervisory Patent Examiner, Art Unit 2612